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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,629	11/20/2001	Ciaran Bolger	08019.0001-00000	8916

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EXAMINER
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DAHBOUR, FADI H

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/988,629

Applicant(s)

BOLGER ET AL.

Examiner

Fadi H. Dahbour

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 1-40, 46, 48-56, 58, 61 and 62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41, 45, 47, 57, 59, 60 and 63 is/are rejected.
- 7) ☒ Claim(s) 42-44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

8/30/04

### DETAILED ACTION

1. The Examiner acknowledges Applicant's submission of the election of claims 41-45, 47, 57, 59, 60, 63, filed on 06/10/2004. Claims 1-40, 46, 48-56, 58, 61, 62 being withdrawn from consideration as being drawn to a non-elected invention.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 57, 59, 60 are rejected under 35 U.S.C. 102(b) as being anticipated by LaCourse (US4572199).

Regarding claim 57, LaCourse discloses a method for monitoring a non-electrical physiological signal (Figs.1-6), comprising sensing the non-electrical physiological signal (see "sensing ocular pulses" in line 1 of abstract), and monitoring a physiological phenomenon while sensing the signal (see "also...with simultaneously obtained ECG signals" in lines 6-8 of abstract).

Regarding claim 59, LaCourse discloses a method for eye tremor monitoring (Figs.1-6), comprising receiving a signal representing eye tremor (see "displacement of

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the corneal surface of the eye" in lines 44-45 of col.1, also see "receive...signal" in lines 30, 32, 33, 35 of column 2), and monitoring eye tremor while receiving said signal (see right-half of Fig.6, also see right-half of Fig.5).

Regarding claim 60, LaCourse discloses a method for eye tremor monitoring (Figs.1-6), comprising acquiring an eye tremor signal (see "displacement of the corneal surface of the eye" in lines 44-45 of col.1, also see "receive...signal" in lines 30, 32, 33, 35 of column 2) from a sensor mounted on or near a patient's closed eyelid (see "transducers to sense" in line 5 of abstract, also see "TRANSDUCER" in Fig.6), filtering artifacts from the eye tremor signal while receiving the eye tremor signal (see "FILTER" in Figs.5-6), analyzing the eye tremor signal (see "analyzed" in line 6 of abstract) for an indication of the patient's status (see "to diagnose carotid insufficiency" in lines 41-42 of col.1), and displaying the result (see right-half of Fig.5).

4. Claim 63 is rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al.

Schneider discloses a method for monitoring eye tremor (Figs.1-6), comprising receiving a signal (see "signal...52" in line 10 of col.4, also see 52 of Fig.4) representing eye tremor (see "eye movement sensor 50" in lines 7-8 of col.4, also see 50 of Fig.4) through a closed eyelid (Figure 1), monitoring eye tremor while receiving the signal (Figures 5-6, also see "monitoring" in line 20 of col.5).

5. Claims 41, 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Torch.

Torch discloses a method for classifying a patient's brain stem function using eye tremor (Figs.1-17), comprising receiving a signal representing eye tremor (see

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"monitoring movement of a person's eye" in line 1 of abstract, also see "signals produced by the camera monitoring movement of the eye" in lines 20-21 of col.24), comparing the received signal representing eye tremor to at least one reference value (see "emitters project a reference frame towards the eye, and a camera on the frame monitors movement of the eye relative to the reference frame" in lines 9-12 of abstract), and classifying the patient's brain stem function using the comparison of the received signal representing eye tremor signal to at least one reference value (see "neurological conditions may also be monitored...brain stem" in lines 60-61 & 67 of col.11, and also in line 4 of col.12), further comprising reducing signal interference from ambient noise (see "environmental noise" in line 11 of col.19).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velez et al in view of Resnick.

Velez discloses a method for monitoring eye tremor (Figs.1-6), comprising a hinged sensor mount to a patient's forehead (Fig.1), and monitoring the patient's eye tremor (see "eye movement monitoring" in lines 48-49 of col.4) while an eye tremor sensor mounted to the sensor mount senses a signal representing eye tremor (24 of Fig.1, also see lines 15-50 in column 9, also see Fig.5).

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Velez does not disclose tape. Resnick discloses tape (see "double backed tapes" in lines 62-63 of col.2). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have double backed tape as taught by Resnick, in the device of Velez, for improved securement of the device in place.

### ***Allowable Subject Matter***

8. Claims 42-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Drawings***

9. The drawings filed on 11/20/01 are objected to because of the following informalities: The element numbers and figure numbers must be thicker and clearer, in Figures 1-11. Corrections are required.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Morrison et al, Campin, Frey et al, Cornsweet et al and Taboada et al are cited to show eye monitoring systems and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fadi H. Dahbour whose telephone number is 703-306-5479. The examiner can normally be reached on M-F, 9am-5:30pm est.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett, can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
8/30/04

Fadi H. Dahbour  
Examiner  
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